

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. – 24. (Canceled)

25. (Currently Amended): A program storage device readable by a machine tangibly embodying a program of instructions executable by the machine to perform method steps for determining and displaying risk information based on a technical wellbore design and Earth properties, said method steps comprising:

generating a drillstring design for a wellbore in each hole section of the wellbore in response to a required wellbore geometry and a required wellbore trajectory of the wellbore;

receiving input data, the input data including input data calculation results associated with the wellbore;

comparing the input data calculation results with a logical expression;

ranking by the logical expression the input data calculation result, and generating ranked risk values extending along a depth of the wellbore in response thereto, each of the ranked risk values representing an input data calculation result that has been ranked by the logical expression as having a risk selected from the group of either a high risk₁ [[or]] a medium risk [[or]] and a low risk;

generating risk information in response to the ranked risk values; and

displaying the risk information.

26. (Previously Presented): The program storage device of claim 25, wherein the risk information comprises a ranked risk category.
27. (Previously Presented): The program storage device of claim 25, wherein the risk information comprises a ranked subcategory risk.
28. (Previously Presented): The program storage device of claim 25, wherein the risk information comprises a plurality of ranked individual risks.
29. (Previously Presented): The program storage device of claim 26, wherein the risk category is selected from a group consisting of: an average individual risk, a subcategory risk, an average subcategory risk, a total risk, an average total risk, a potential risk for a design task, and an actual risk for the design task.
30. (Previously Presented): The program storage device of claim 29, wherein the subcategory risks is selected from a group consisting of: gains risks, losses risks, stuck pipe risks, and mechanical risks.
31. (Previously Presented): The program storage device of claim 28, wherein said individual risks are selected from a group consisting of: H₂S and CO₂, Hydrates, Well water depth,

Tortuosity, Dogleg severity, Directional Drilling Index, Inclination, Horizontal displacement, Casing Wear, High pore pressure, Low pore pressure, Hard rock, Soft Rock, High temperature, Water-depth to rig rating, Well depth to rig rating, mud weight to kick, mud weight to losses, mud weight to fracture, mud weight window, Wellbore stability window, wellbore stability, Hole section length, Casing design factor, Hole to casing clearance, casing to casing clearance, casing to bit clearance, casing linear weight, Casing maximum overpull, Low top of cement, Cement to kick, cement to losses, cement to fracture, Bit excess work, Bit work, Bit footage, bit hours, Bit revolutions, Bit Rate of Penetration, Drillstring maximum overpull, Bit compressive strength, Kick tolerance, Critical flow rate, Maximum flow rate, Small nozzle area, Standpipe pressure, ECD to fracture, ECD to losses, Gains, Gains Average, Losses, Losses average, Stuck, Stuck average, Mechanical, Mechanical average, Risk Average, Subsea BOP, Large Hole, Small Hole, Number of casing strings, Drillstring parting, and Cuttings.

32. (Previously Presented): The program storage device of claim 26, wherein the step of generating the risk information in response to the ranked risk values comprises the step of receiving the ranked risk values and calculating the ranked risk categories.
33. (Previously Presented): The program storage device of claim 32, wherein the step of displaying the risk information comprises the step of: displaying the ranked risk categories.

34. (Previously Presented): The program storage device of claim 27, wherein the step of generating the risk information in response to the ranked risk values comprises the step of receiving ranked risk values and calculating the subcategory risks.
35. (Previously Presented): The program storage device of claim 34, wherein the step of displaying the risk information comprises the step of: displaying the ranked subcategory risks.
36. (Previously Presented): The program storage device of claim 28, wherein the step of generating the risk information in response to the ranked risk values comprises the steps of receiving the ranked risk values and using the ranked risk values to represent the ranked individual risks.
37. (Previously Presented): The program storage device of claim 36, wherein the step of displaying the risk information comprises the step of displaying the ranked individual risks.
38. – 70. (Canceled)